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(4) REMARKS

RESPONSE TO REJECTION UNDER SEC. 103

All pending claims (1-7) are rejected under 35 U.S.C. Sec. 103 as obvious in view of a single reference, U.S. Pat. No. 6,205,481 (Heddaya).

Heddaya discusses a "Protocol for Distributing Fresh Content Among Networked Cache Servers" (title). More particularly, Heddaya discusses "A technique for automatic, transparent, *distributed*, scalable and robust replication of document copies in a computer network wherein *request messages* for a particular document *follows paths* from the clients to a home server that *form a routing graph*." (Abstract, emphasis added). Heddaya "...exploits the fact that the paths that document requests follow through a computer network from a client to a particular document on a particular home server naturally form a routing graph or tree." Col. 3, ll. 25-28. See also Heddaya FIG. 1 showing a tree hierarchy network. Heddaya is a "...*distributed protocol* for the cache servers to maintain and propagate updated document versions among themselves and the home servers." Col. 3, ll. 49-51. The protocol *requires* "...hit reports to the corresponding home server...", col. 3, ll. 52, whereafter "The home server then replies with an indication that the document has been updated..." col. 3, ll. 55-56, or periodic updates from the home server or a neighboring cache in the tree, col. 3, ll. 60 to col. 4, line 22. Further, the protocol employs "gossip messages" between caches regarding tree hierarchy and document modifications. Col. 4, ll. 22-44. This is all to the goal wherein "The invention eliminates the need for home servers to be polled periodically by large numbers of cache servers to check for content freshness, thereby reducing the load on the home servers." Col. 4, ll. 45-48.

This is not the features nor functionality of the invention disclosed and claimed by the applicant.

It is axiomatic that claims are not to be interpreted in a vacuum. Slimfold Mfg. Col v. Kinkead Indus., 810 F.2d 1113, 1 USPQ 2d 1563 (Fed. Cir. 1987); Moleculon Res. Corp. v. CBS, Inc., 793 F.2d 1261, 229 USPQ 805 (Fed. Cir. 1986). The claim and specification language must be

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1 considered. DMI, Inc. v. Deer & Co., 755 F.2d 1570, 225 USPQ 236 (Fed. Cir. 1985). By
2 ignoring the present application's use of the claims limitations as discussed in the Detailed
3 Description, the argument as set forth in the Action ignores this requirement. Understanding, or
4 Interpreting, a limitation *already in a claim* in light of the Detailed Description is not the same as
5 an impermissible reading of a limitation into a claim. Otherwise, these court decisions are
6 rendered meaningless. This need for consideration of "specification language" is particularly
7 applicable in computer process cases where terms carry a special rather than ordinary
8 (dictionary) meaning.

9 The Office Action at Page 2, starting about line 18 and continuing to Page 3, about line 18,
10 merely directly quotes applicant's claim 1 verbatim and inserts references to Heddaya as being
11 identical. It does not use *Heddaya's own language* to argue direct equivalency; as shown
12 hereinabove and hereinafter, to so use Heddaya's own language proves the argument invalid.
13 The use of similar terms of art does not relate to identical functionality. This is a failing of the
14 Office's argument.

15 First, the Action errs when it says the "content server" and "proxy servers" are both shown as
16 "... (16-1, 16-3, 16-4, 16-8 and 16-10, FIG. 1)..." Page 2, penultimate 2 lines. This is not correct.
17 FIG. 1 of Heddaya shows a "Home server" 20-1 and a plurality of tree paths, each path having
18 at least one "Cache Server" numbered 16-n. This same error is repeated under an Office quote
19 on Page 3 to the "subscription manager." This intimates a position that either idea, "content" or
20 "home" and "proxy" and respective functionalities can be interchanged for a specific "document;"
21 that is clearly not supportable, especially with respect to the terms employed in describing and
22 claiming the present invention.

23 Returning to the Heddaya Summary, columns 3 and 4 directly cited by applicant's above in
24 these Remarks, in other words, by Heddaya's protocol, the host or home computer/server
25 learns a particular path to a client, and updates cache servers along that path only, or the cache
26 servers "gossip" to do so among themselves in that path. This is not "...a system of maintaining
27 content consistency *between the content server and proxy server...*" claimed by applicant -

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1 Claim 1, preamble - using a content server based "subscription manager" and "consistency
2 manager" - Claim 1 elements. Thus, the Office interprets this system as equivalent to
3 "(transparent distributing updated content)" - taken presumably from Heddaya col. 3, ll. 24 -
4 wherein, in fact, a *distributed* protocol of specific requirements by definition is not.

5 Thus, a fundamental premise which the Office bases its arguments on is flawed. The basic
6 operating principles of Heddaya's protocol relate to a distributed protocol involving specific
7 routing trees and cache servers therein. Applicant provides scalable, guaranteed web cache
8 consistency and a method for content owners to control their content which is being cached
9 around the Internet, defined in the claim as the "subscription manager *in the content server...*"
10 and the "consistency manager *in the content server...*", neither of which are provided for by
11 Heddaya.

12 Heddaya failing to support a principle premise relied upon by the Office to allege obviousness,
13 the rejection to claim 1 and the claims dependent thereon fails *inter alia*. It is respectfully
14 suggested that the rejection should be withdrawn on this ground alone. However, in order to
15 fully support advancement of the application, applicant now offers more details regarding
16 specifics.

17 It is not true that the only thing "Heddaya does not explicitly disclose discard [sic, to discard] the
18 cache content file from those proxy servers." Action, Page 3, ll. 18-19. In fact, the differences
19 are significantly different functionalities in a plurality of claimed elements which have nothing to
20 do with keeping or discarding a cached file.

21 First, in Heddaya, there are no "...proxy servers *that are subscribed to a content file stored in*
22 *the content server...*", applicant's claim 1. The Action says at Page 3, ll. 10-11, that Heddaya
23 col. 3, lines 22-67 to col. 4, lines 1-48 are equivalent in that there is a ..."(distributing updated
24 cache content)...". Applicant above uses Hedaya's own language to show that this cited text
25 actually summarizes the tree-hierarchy protocol Hedaya is using. There is simply no
26 subscription service involvement anywhere. In fact, Hedaya concludes, "The invention

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1 eliminates the need for home servers to be polled periodically by large numbers of cache
2 servers to check for content freshness, thereby reducing the load on home servers." While this
3 is also not applicant's direct invention either, this elimination of access to the home server
4 altogether is contradictory to the idea of "subscription". Proceeding contrary to the wisdom of
5 the prior art is "strong evidence" of non-obviousness. W.L. Gore & Assoc., Inc. V. Garlock, 220
6 USPQ 303 (CA FC 1983).

7 The Action also concludes (Page 3, ll. 22-24) that, "The list of modified documents is checked
8 to remove any information which has most recently been received from the particular
9 neighboring cache server." Applicant finds no such "list of modified documents" described in
10 Heddaya. Applicant further defines the list in claim 2.

11 Second, in Heddaya there is no centralized location that would collect subscription information
12 as Heddaya's functionality is expressly distributed by the protocol, e.g., by the "gossip" feature,
13 *supra*. Therefore, the content server, where applicant's claimed "subscription manager" and
14 "consistency manager" reside, would find it difficult, if not impossible to get an up-to-date
15 snapshot of where all of their content was currently cached. There would likely be a lot of
16 "neighboring" networks and caches, particularly if Heddaya's scheme was widely-deployed.
17 Under Heddaya therefore, there is no central way - as there is provided by applicant's
18 "managers" - to initiate contact with these networks to instruct them to stop caching particular
19 content - i.e., the content owner's must wait for at least one cache from each network to contact
20 them so that they can instruct the cache to invalidate the cached object and then to inform all
21 others in the hierarchy. The Examiner admits this when he states at Page 3, lines 18-22,
22 "However, Heddaya discloses that the cache server learns about changes to cached document
23 by receiving information from a neighboring cache server. In particular, the cache servers send
24 status to one another, to locate the neighborhood hierarchy."

25 Third, it is stated by the Office regarding applicant's claim 3 that "...Heddaya discloses that the
26 proxy servers notifies the subscription manager...." Again, there simply is no subscription
27 service nor subscription manager in Heddaya's scheme. The discussion of Heddaya col. 9 and

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10 cited relates to how the cache intercepts a request from a user. Heddaya's "snooper 28" is not a subscription mechanism. This Internet Protocol proxy - col. 8, ll. 4 - is a router resource manager 24 function which "...inspects a packet and determines its type, destination, and the document requested...". Col. 8, ll. 62-64. In other words, the snooper must intercept TCP SYN packets (not to be confused with HTTP SUB headers as disclosed by applicant and set forth in claim 3) in order for the cache server to appear as the home server 20 to the client. The cache must do this in order to establish a TCP connection with the client so that the cache server can then receive the client's HTTP GET request. The client request would not include a "SUB header" unless the client was using present applicant's invention.

Next, regarding the rejection of claim 4 at Page 5 of the Action, applicant finds no language at the cited co. 14, lines 41-64 to the effect of applicant's claim that a proxy server determines popularity of a file. Heddaya merely requires "...if the reply indicates that the requested document X has been updated since it was last cached...the cache server C proceeds to state 94 in which its local cache copy is invalidated." Again, this is based on information replied by the home server and is directly contrary to the teaching and claim of the present invention.

Finally, with respect to claims 5-7, Heddaya simply does not have a consistency manager as claimed and defined by applicant's specification. Heddaya is only one specific example of prior art solutions discussed by applicant in his Background section. Heddaya appears to be an improvement on the discussed approach of having a Web proxy server contact the content server on every client request. This "hit" report of Heddaya - see col. 3, starting at line 53 - seems to *follow* an immediate return to the client of the cached document; thus, there is no guaranteed consistency as in the present invention. It is simply a modified polling approach solution. The use of Heddaya by scheduled updates - col 3, starting a line 63 - also is evidence that he may rely upon the second prior art solution also pointed out by the present applicant in the Background section which is contrary to applicant's solution in the present application.

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Clearly, nothing in Heddaya teaches, suggests, nor motivates the various claimed features of the present invention. It is respectfully requested that the rejections against each claim be withdrawn.

SUMMARY AND CONCLUSION

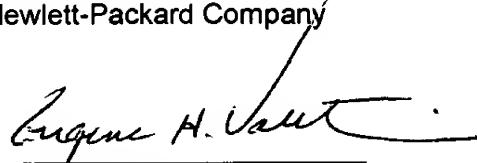
Heddaya is vastly different from applicant's disclosed invention and in some instances clearly contrary to applicant's disclosed invention. Therefore, it is not a suited reference on which to base an objection of obviousness.

Based upon the foregoing, it is submitted that the application now presents claims which are directed to novel, unobvious and distinct features of the present invention which are an advancement to the state of the art. Reconsideration and allowance of all claims is respectfully requested. The right is expressly reserved to reassert any and all arguments, including the raising of new arguments, should a Notice of Allowance not be forthcoming.

Questions or suggestions that will advance the case to allowance may be directed to the undersigned by teleconference at the Examiner's convenience.

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Respectfully submitted,
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